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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/669,866
Filing Date: September 24, 2003
Appellant(s): ZYBURA ET AL.

MAILED

JUL 24 2007

Technology Center 2100

Christopher J. Culberson
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 4/9/2007 appealing from the Office
action mailed 10/6/2006.

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(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,061,743	Thatcher et al.	05 2000
20030131104	Karamanolis et al.	07 2003
6,154,212	Eick et al.	11 2000

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

As set forth in MPEP 2106(II)A:

*Identify and understand Any Practical Application Asserted for the Invention. The claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at 1373, 47USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); In re Ziegler, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)). Accordingly, a complete disclosure should contain some indication of the **practical application** for the claimed invention, i.e., why the applicant believes the claimed invention is useful.*

*Apart from the utility requirement of 35 U.S.C. 101, usefulness under the patent eligibility standard requires significant functionality to be present to satisfy the useful result aspect of the practical application requirement. See Arrhythmia, 958 F.2d at 1057, 22 USPQ2d at 1036. Merely claiming nonfunctional descriptive material **stored in a***

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computer-readable medium does not make the invention eligible for patenting.

For example, a claim directed to a word processing **file stored on a disk may satisfy the utility** requirement of 35 U.S.C. 101 since the information stored may have some **"real world"** value. However, the mere fact that the claim may satisfy the utility requirement of 35 U.S.C. 101 **does not mean that a useful result is achieved under the practical application requirement. The claimed invention as a whole must produce a "useful, concrete and tangible" result to have a practical application.**

1. **Claims 1-33 is rejected under 35 U.S.C. 101 because invention is directed to non-statutory subject matter.**

2. As to claim 1, **"A method for synchronizing information in namespaces, comprising:**

receiving an indication of a change to information in a first namespace; based on the indication, determining if an entity exists in a second namespace related to the information; if so, determining if the entity has a characteristic that conflicts with the information; and if a conflict exists, modifying the entity to resolve the conflict prior to applying the change to the second namespace" is directed to

"abstract idea" because all of the elements in the claim 1 would reasonably be interpreted by one of ordinary skill in light of the disclosure as software, such that the method is software, per se, is "non-statutory subject matter" and **claim 1** do not have "practical application" because the "final result" by the claimed invention in the claim 1

elements particularly, ***determining if an entity exists in a second namespace related to the information; if so, determining if the entity has a characteristic that conflicts with the information; and if a conflict exists, modifying the entity to resolve the conflict prior to applying the change to the second namespace***" is not producing "useful, tangible and concrete" and therefore, claim 1 is a non-statutory subject matter. *[The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material per se.]*

The claims 2-12 dependent from claim 1 is also rejected in the above analysis

3. As to claim 13, ***"A method for synchronizing information in namespaces, comprising:***

receiving an indication of a change to information in a first namespace; based on the indication, determining if an entity exists in a second namespace related to the information; if not, creating a representation of the entity within the second namespace" is directed to "abstract idea" because all of the elements in the claim 13 would reasonably be interpreted by one of ordinary skill in light of the disclosure as software, such that the method is software per se is "non-statutory subject matter", and claim 13 do not have "practical application" because the "final

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result” by the claimed invention in the claim 13 elements particularly, ***determining if an entity exists in a second namespace related to the information; if not, creating a representation of the entity within the second namespace***” is not producing “useful, tangible and concrete” results, and therefore, claim 13 is a non-statutory subject matter.

The claims 14-20 dependent from claim 13 is also rejected in the above analysis

4. As to claim 21, ***“A technique for synchronizing entities within two namespaces, comprising: while synchronizing the two namespaces: identifying a conflict between a change notification received from a first namespace and a state of information within a second namespace; creating a temporary entity within the second namespace that allows the synchronization to proceed without interference by the conflict; and if the conflict becomes resolved such that the temporary entity is no longer necessary, removing the temporary entity”*** is directed to “abstract idea” because all of the elements in the claim 21 would reasonably be interpreted by one of ordinary skill in light of the disclosure as software, such that the method is software per se is “non-statutory subject matter”, and claim 21 do not have “practical application” because the “final result” by the claimed invention in the claim 21 elements particularly, ***creating a temporary entity within the second namespace that allows the synchronization to proceed without interference by the conflict; and if the conflict becomes resolved such that the temporary entity is no longer***

necessary, removing the temporary entity” is not producing “useful, tangible and concrete” results, and therefore, claim 21 is a non-statutory subject matter. *[The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material per se.]*

5. The claims 22-23 dependent from claim 21 is also rejected in the above analysis.

6. As to claim 24, ***“A computer-readable medium encoded with a data structure, comprising: a plurality of entities, each entity having a first field having a name, the name being unique across each entity in the data structure; a second field having an identity, the identity being globally unique; and a third field having a phantom property, the phantom property being operative to distinguish between a first state of the entity and a second state of the entity”*** is directed to “abstract idea” because all of the elements in the claim 24 would reasonably be interpreted by one of ordinary skill in light of the disclosure as software or simply computer code, is considered to be software per se, furthermore, ***“computer readable medium”*** lack storage on a suitable computer-readable medium, in other words,

(i) ***which is not stored on an appropriate computer readable medium***

(ii) fails to meet the IEEE definition of a data structure;
are not able to realize any functionality and are thus not statutory;

It is also noted that claim 24 do not have ***“practical application”*** because the “final result” by the claimed invention in the claim 24 elements particularly, ***a plurality of entities, each entity having a first field having a name, the name being unique across each entity in the data structure; a second field having an identity, the identity being globally unique; and a third field having a phantom property, the phantom property being operative to distinguish between a first state of the entity and a second state of the entity***” is not producing “useful, tangible and concrete” results, and therefore, claim 24 is a non-statutory subject matter. *[The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material per se.]*

7. As to claim 25, ***“A computer-readable medium having computer-executable components, comprising: a synchronization environment having an associated external namespace, an associated central namespace, and a synchronization mechanism, the synchronization mechanism being configured to receive change information from the external namespace.....collisions and the placeholder component being operative to avoid dangling references ”*** is directed to “abstract

idea” because all of the elements in the claim 25 would reasonably be interpreted by one of ordinary skill in light of the disclosure as software or simply computer code, is considered to be software per se, furthermore,

“computer readable medium” lack storage on a suitable computer-readable medium, in other words, ***which is not stored on an appropriate computer readable medium.***

It is also noted that claim 25 do not have **“practical application”** because the “final result” by the claimed invention in the claim 25 elements particularly, ***a synchronization environment having an associated external namespace, an associated central namespace, and a synchronization mechanism, the synchronization mechanism being configured to receive change information from the external namespace.....collisions and the placeholder component being operative to avoid dangling references”*** is not producing “useful, tangible and concrete” results, and therefore, claim 25 is a non-statutory subject matter. *[The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material per se.]*

8. The claims 26-33 dependent from claim 25 is also rejected in the above analysis

It is noted that, “computer-readable instructions, data structures, may cover the

definition of "carrier wave" [see specification page 21, line 25], therefore,
claims 12,20,24-33 are "***non statutory as the claims***".

For "General Analysis for Determining Patent-Eligible Subject Matter", see 101 Interim Guidelines as indicated below:

<<<http://www.uspto.gov/web/offices/pac/dapp/ogsheet.html>>>

see MPEP 8th edition, Rev 5, Aug 2006

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1,13,21,24,25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 13, 22,26 of co pending Application No. **10/671,408**, filed on 9/24/2003. Although the conflicting claims are not identical, they are not patentably distinct from each other because in the present application Independent Claims 1,13,21,25, directed to method for synchronizing information in namespaces, comprising: receiving an indication of a change to information in a first namespace; based on the indication, determining if an entity exists in a second namespace related to the information, if so,.....with the information; and if a conflict exists,second namespace ;

while co-pending Application No **10/671,408** claims 1,13,22,26 are directed to ***'receiving an indication of a change to an attribute of a first external object in a first namespace, the change including a reference to a second external object in the first namespace;; identifying a first.....second namespace the first central object.....first namespace; identifying second central object....second namespace that corresponds to the secondfirst namespace; identifying another externalsecond namespace; and prorogating the data to the other external object.' "***

It would have been obvious one of the ordinary skill in the art at the time of the applicant's invention to add or drop limitation in order to arrive at the same results, for example in the present application dropping the limitation such as "reference to a second external object in the first namespace", object corresponds to the first external object in the first namespace; second namespace that corresponds to the second external object in the first namespace” or vice versa may be used in synchronizing information in namespaces particularly modifying the entity or related attributes to identify conflicts, and determining object characteristics. Accordingly, the instant Claims are very broad and within the scope of the Claims of the Application No. **10/671,408**.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 1-15,20-23,25-31, are rejected under 35 U.S.C. 103(a) as being unpatentable over Thatcher et al. [hereafter Thatcher], US Patent No. 6061743 published on May 9, 2000 in view of Karamanolis et al. [Karamanolis], US Pub.No. 20030131104, published on July 10,2003.

13. As to claim 1, 12, 13, 20, Thatcher teaches a system which including 'synchronizing information in namespaces' [col 5, line 47-52, col 6, line 48-53], distributed directory typically containing different objects with distinguished names or "DN" which is a unique reference that identifies an object distinct identity and location within a distributed directory associated with "namespace" [col 5, line 47-52];

'receiving an indication of a change to information in a first namespace' [col 7, line 60-67], Thatcher specifically teaches change information in the namespace, for example reading, writing deleting information related to namespace that corresponds to change to information in a first namespace. It is also noted that Thatcher specifically teaches host namespace fig 3, element 51, and foreign namespace, fig 3, element 54, first namespace corresponds to fig 3, element 51;

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'based on the indication, determining if an entity exists in a second namespace related to the information' [col 8, line 24-27, line 45-52], Thatcher specifically teaches host namespace, foreign namespace and association between these two namespaces, further Thatcher also teaches each namespace has a separate line in the namespace table i.e., namespace name, namespace class file and like in a namespace table [col 8, line 31-38]. It is also noted that Thatcher establishes relationship between foreign namespace and host namespace as detailed in col 8, line 45-52;

'determining if the entity has a characteristic that with the information' [col 9, line 13-41], Thatcher teaches two namespaces, particularly, host namespace, foreign namespace as detailed in fig 3, further host namespace may not know the content details of the target file, while foreign namespace keeps track of files and associated characteristics of file[s] as detailed in col 9, line 13-21;

'modifying the entity, applying the change to the second namespace' [[col 11, line 6-16, fig 5], Thatcher teaches interface module specifying target to access the host namespace, further determines whether target is a container object within the host namespace, and the condition is tested whether or not to add the object i.e. add children to list as detailed in fig 5. It is however, noted that Thatcher does not specifically teach "conflicts with the information, modifying the entity to resolve the conflict". On the other hand, Karamanolis disclosed "conflicts with the information, modifying the entity to resolve the conflict" [page 2, col 2, 0031, page 6, col 1, 0071, 0072, and 0075, fig 8], Karamanolis specifically teaches conflicts between link and

unlink operations related to namespace, further resolving conflicts due to failure occurs during execution as detailed in fig 8, page 6, col 1, 0075.

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Karamanolis et al. into aggregating disparate namespaces of Thatcher et al. because both Thatcher, Karamanolis are directed to firstly distributed network computer system [see Thatcher: fig 1; Karamanolis: fig 1], secondly, both are directed to synchronizing namespaces in a distributed computer environment [see Thatcher: col 6, line 43-50; Karamanolis: page 3, col 2, 0048, 9-116]; thirdly, both are specifically directed to namespace operations and associated namespace objects specifying the structure, entities, and relation between target and host [see Thatcher: fig 3; Karamanolis: fig 5-6], and both Thatcher, Karamanolis are from same field of endeavor.

One of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Karamanolis et al. into aggregating disparate namespaces of Thatcher et al. because that would have allowed users of Thatcher to performing namespace operations by incorporating "log records" to track events of both success as well as failure records as suggested by Karamanolis [see page 3, col 1, 0046], particularly conflicts between link and unlink operations, furthermore, resolving the conflicts before and after the initiated link operations related to same namespace and target objects [see Karamanolis: fig 8, page 6, col 1, 0075], also avoid locking

distributed resources by serializing operations at each partition , thus bringing the advantages of "reduces communications overhead, reduces synchronous I/O and increases operations concurrency [see Karamanolis: page 2, col 1, 0025, line 12-14].

14. As to claim 2, Thatcher disclosed 'wherein the indication of the change comprises a notice that another entity was added to the first namespace' [col 6, line 62-67].

15. As to claim 3, Thatcher disclosed 'wherein the characteristic comprises a name of the other entity' [col 8, line 45-48].

16. As to claim 4, Karamanolis disclosed 'wherein the conflict comprises a name collision between the entity in the first namespace and the entity in the second namespace' [page 5, col 2, 0070, page 6, col 1, 0072].

17. As to claim 5, Thatcher disclosed 'wherein modifying the entity in the second namespace comprises creating an indication that the characteristic of the entity in the second namespace has been invalid' [col 9, line 56-67].

18. As to claim 6, Thatcher disclosed 'wherein creating the indication comprises associating with the entity in the second namespace an indication that the name of the entity in the second namespace is no longer valid' [col 6, line 13-23].

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19. As to claim 7, Thatcher disclosed 'wherein the information in the first namespace comprises an entity in the first namespace' [col 5, line 21-23, line 47-51, fig fig 2-3].

20. As to claim 8, Karamanolis disclosed 'wherein modifying the entity comprises altering the characteristic of the entity to eliminate the conflict' [page 6, col 1, 0077].

21. As to claim 9, Thatcher disclosed 'wherein the characteristic comprises a name of the entity [fig 2-3], and wherein altering the characteristic comprises modifying the name of the entity' [col 6, line 53-61].

22. As to claim 10, Thatcher disclosed 'wherein modifying the name comprises replacing the name with a unique identifier' [col 5, line 47-52].

23. As to claim 11, Thatcher disclosed 'wherein modifying the name comprises setting a flag associated with the entity to indicate that the name of the entity is transient' [col 6, line 43-45].

24. As to claim 14, Thatcher disclosed 'wherein the indication of the change comprises a notice of a reference to the entity in the second namespace' [col 7, line 30-36].

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25. As to claim 15, Thatcher disclosed 'wherein the reference indicates that the information in the first namespace refers to the entity in the second namespace' [fig 2-3,col 7, line 14-17].

26. As to claim 21, Thatcher teaches a system which including 'a technique for synchronizing entities within two namespaces' [fig 3, col 6, line 48-50], two namespaces corresponds to host namespace, fig 3; element 51, foreign namespace, fig 3, element 54;

'while synchronizing the two namespaces, identifying change notification received from a first namespace and a state of information within a second namespace' [col 6, line 48-61], Thatcher specifically teaches replication system to replicate or synchronize different object changes that are associated with distributed directory, particularly updates propagated to other replicates for example between host namespace and foreign namespace as detailed in col 6, line 48-61;

'creating a temporary entity within the second namespace that allows the synchronization to proceed without interference ' [col 6, line 62-67, col 7, line 1-4], Thatcher specifically teaches various object entities related to namespace for example as detailed in the table at col 6, and replicating through the replica list of a partition as detailed in col 7, line 1-4;

'temporary entity is no longer necessary, removing the temporary entity' [col 7, line 4-12].

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It is however, noted that Thatcher does not specifically teach 'identifying a conflict , conflict becomes resolved'. On the other hand, Karamanolis disclosed "'identifying a conflict , conflict becomes resolved' [page 2, col 2, 0031, page 6, col 1, 0071, 0072, and 0075, fig 8], Karamanolis specifically teaches conflicts between link and unlink operations related to namespace, further resolving conflicts due to failure occurs during execution as detailed in fig 8, page 6, col 1, 0075.

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Karamanolis et al. into aggregating disparate namespaces of Thatcher et al. because both Thatcher, Karamanolis are directed to firstly distributed network computer system [see Thatcher: fig 1; Karamanolis: fig 1], secondly, both are directed to synchronizing namespaces in a distributed computer environment [see Thatcher: col 6, line 43-50; Karamanolis: page 3, col 2, 0048, 9-116]; thirdly, both are specifically directed to namespace operations and associated namespace objects specifying the structure , entities, and relation between target and host [see Thatcher: fig 3: Karamanolis: fig 5-6], and both Thatcher, Karamanolis are from same field of endeavor.

One of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Karamanolis et al. into aggregating disparate namespaces of Thatcher et al. because that would have allowed users of Thatcher to performing namespace operations by incorporating "log records" to track events of both success as

well as failure records as suggested by Karamanolis [see page 3, col 1, 0046], particularly conflicts between link and unlink operations , furthermore, resolving the conflicts before and after the initiated link operations related to same namespace and target objects [see Karamanolis: fig 8, page 6, col 1, 0075] , also avoid locking distributed resources by serializing operations at each partition , thus bringing the advantages of "reduces communications overhead, reduces synchronous I/O and increases operations concurrency [see Karamanolis: page 2, col 1, 0025, line 12-14].

27. As to claim 22, Karamanolis disclosed 'conflict becomes resolved by receiving a notice to delete the temporary entity' [page 3, 0037].

28. As to claim 23, Karamanolis disclosed 'wherein the conflict becomes resolved by receiving a notice to delete the temporary entity' [page 2, col 2, 0035].

29. As to claim 25, Thatcher teaches a system which including 'a synchronization environment having an associated external namespace [col 3, line 65-67,col 6, line 48-53, fig 3], Thatcher specifically teaches distributed directory synchronized database, particularly having various entries related to namespace in a database; and a synchronization mechanism, the synchronization mechanism being configured to receive changes to at least one object in the external namespace [col 5, line 14-23, fig 3]; external namespace corresponds to foreign namespace as detailed in fig 3; the synchronization mechanism being configured to receive the change information in a first

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order that differs from a second order, the second order being the temporal order in which the changes occurred to the at least one object in the external namespace' [col 7, line 13-20], 'placeholder component being operative to avoid dangling references' [col 8, line 35-44], Thatcher specifically teaches namespace class file that provides an identifier to the corresponding module, further interface modules are programmed in JAVA language as detailed in col 8, line 40-44; it is noted that dangling references with respect to namespace is integral part of Thatcher's teachings because typically any link or pointer to instruction for example database table element, database index item that "no longer" exists in the entry "namespace name" corresponds to dangling references particularly when modules are programmed in JAVA languages [col 8, line 41-44], in other words, when a program contains a reference (or pointer) to a destroyed object is called a *dangling reference* (or dangling pointer) by disallowing the explicit destruction of objects, Java eliminates the problem of dangling references.

It is however, noted that Thatcher does not specifically teaches name resolving component being operative to avoid name collisions and the placeholder component being operative to avoid name collisions'. On the other hand, Karmanolis disclosed name resolving component being operative to avoid name collisions and the placeholder component being operative to avoid name collisions [page 2, col 2, 0031, page 6, col 1, 0071, 0072, and 0075, fig 8]

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Karamanolis et al. into aggregating disparate namespaces of Thatcher et al. because both Thatcher, Karamanolis are directed to firstly distributed network computer system [see Thatcher: fig 1; Karamanolis: fig 1], secondly, both are directed to synchronizing namespaces in a distributed computer environment [see Thatcher: col 6, line 43-50; Karamanolis: page 3, col 2, 0048]; thirdly, both are specifically directed to namespace operations and associated namespace objects specifying the structure, entities, and relation between target and host [see Thatcher: fig 3; Karamanolis: fig 5-6], and both Thatcher, Karamanolis are from same field of endeavor.

One of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Karamanolis et al. into aggregating disparate namespaces of Thatcher et al. because that would have allowed users of Thatcher to performing namespace operations by incorporating "log records" to track events of both success as well as failure records as suggested by Karamanolis [see page 3, col 1, 0046], particularly conflicts between link and unlink operations, furthermore, resolving the conflicts before and after the initiated link operations related to same namespace and target objects [see Karamanolis: fig 8, page 6, col 1, 0075], also avoid locking distributed resources by serializing operations at each partition, thus bringing the advantages of "reduces communications overhead, reduces synchronous I/O and increases operations concurrency [see Karamanolis: page 2, col 1, 0025, line 12-14].

30. As to claim 26, Thatcher disclosed 'central namespace includes a plurality of object that are correlated to a corresponding plurality of objects in the external namespace' [fig 3, col 7, line 52-67]

31. As to claim 27, Karamanolis disclosed 'name collision comprises an error corresponding to two objects in the central namespace having similar names' [page 2, col 2, 0034].

32. As to claim 28, Karamanolis disclosed 'name resolving component comprises a pair of subspaces, one subspace for transient objects, and the other subspace for non-transient objects' [page 2, col 2, 0035].

33. As to claim 29, Karamanolis disclosed 'transient objects comprises objects that have been identified as having a name that is no longer valid' [page 3, col 1, 0045].

34. As to claim 30, Karamanolis disclosed 'non-transient objects comprise objects that have not been identified as having a name that is no longer valid' [page 3, col 1, 0046].

35. As to claim 31, Thatcher disclosed 'dangling reference comprises an error corresponding to one object in the central namespace referring to another object in the central namespace that does not yet exist'[col 9, line 58-66].

36. Claims 16-19, 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thatcher et al. [hereafter Thatcher], US Patent No. 6061743 published on May 9, 2000 of Karamanolis et al. [Karamanolis], US Pub.No. 20030131104, published on July 10, 2003 as applied to claims 13, and further in view of Eick et al. [hereafter Eick], US Patent No. 6154212, published on Nov 28, 2000.

37. As to claim 16, Thatcher disclosed 'wherein the representation of the entity comprises a second namespace' [fig 2-3]. It is however, noted that both Thatcher, Kkaramanolis do not specifically teach "phantom entity". On the other hand, Eick disclosed "phantom entity" [col 7, line 8-13].

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Eick et al. into aggregating disparate namespaces of Thatcher et al, and namespace management in a distributed file system of Karamanolis et al. because Thatcher et al, Karamanolis et al. and Eick et al are all directed to distributed networking environment particularly teaching user interfacing [see Thatcher: fig 1-3, col 3, line 38-49; Karamanolis: fig 1; and Eick: fig 2], and all the references are specifically directed to entity data structure [Thatcher: fig 3; Karamanolis: fig 5-6; Eick: fig 3].

One of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Eick et al. into aggregating disparate namespaces of Thatcher et al, and namespace management in a distributed file system of Karamanolis et al. because that would have allowed users of Thatcher, Karamanolis to implement the interface based on node and linking various namespaces in a hierarchical data structure, furthermore allowing users of Thatcher, Karamanolis to use interface programming of Eick configure to support a range of viewing functions that including identification, selection, collapse, expand, reposition and transforming of namespace related objects, also allows user to group sets of nodes and links into "phantom" aggregate node that including flags associated with each object using high-performance language for example C++[Eick: col 7, line 36-41], thus substantially reduces the time and expense associated with developing network interface in synchronized with the network data [Eick: col 3, line 12-24].

38. As to claim 17, Eick disclosed 'wherein the phantom entity includes a flag indicating the state of the phantom entity' [col 7, line 36-41].

39. As to claim 18, Thatcher disclosed "receiving a second indication of a second change to information in the first namespace and in response to the second indication, modifying the state' [col 8, line 52-60]. On the other hand, Eick disclosed 'phantom entity' [col 7, line 36-41].

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40. As to claim 19, Thatcher disclosed 'wherein the second indication comprises an instruction to create the entity in the second namespace' [col 9, line 22-31].

41. As to claim 32, Eick disclosed 'placeholder component comprises an identifier on a phantom object in the central namespace' [col 5, line 56-60, col 7, line 8-11].

42. As to claim 33, Eick disclosed 'phantom object comprises an object that is referred to by another object in the central namespace but which has not yet been formally created' [col 9, line 8-16].

43. Claim 24, is rejected under 35 U.S.C. 103(a) as being unpatentable over Thatcher et al. [hereafter Thatcher], US Patent No. 6061743 published on May 9, 2000 in view of Eick et al. [hereafter Eick], US Patent No. 6154212, published on Nov 28, 2000.

44. As to claim 24, Thatcher teaches a system which including 'a computer-readable medium encoded with a data structure' [col 3, line 50-62];

'a plurality of entities, each entity having a first field having a name, the name being unique across each entity in the data structure' [col 4, line 51-52, line 66-67, col 5, line 1-2, line 21-23, line 30-34], Thatcher specifically teaches distributed directory organized in a hierarchical structure representing various objects [see fig 2, col 5, line 30-34], further Thatcher also teaches data structure including schema having

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relationships between various objects having respective attributes and like as detailed in col 4, line 51-52;

'a second field having an identity, the identity being globally unique' [col 5, line 47-57, see table in col 5-6], Thatcher specifically teaches data structure partitioned that is having root objects, sub-tree and like defining unique reference that identifies object as detailed in 47-52];

'a third field having property being operative to distinguish between a first state of the entity and a second state of the entity' [col 6, line 1-27], Thatcher specifically teaches a table consisting of multiple partition and their association with distributed directory and their relationships. It is however, noted that Thatcher does not specifically teach 'phantom property'. On the other hand, Eick disclosed 'phantom property' [col 7, line 8-11, line 30-41].

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Eick et al. into aggregating disparate namespaces of Thatcher et al, because Thatcher et al, and Eick et al are all directed to distributed networking environment particularly teaching user interfacing [see Thatcher: fig 1-3, col 3, line 38-49; Eick: fig 2], and both references are specifically directed to entity data structure [Thatcher: fig 3;; Eick: fig 3].

one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Eick et al. into aggregating disparate namespaces of Thatcher et al, because that would have allowed users of Thatcher, to implement the

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interface based on node and linking various namespaces in a hierarchical data structure, furthermore allowing users of Thatcher to use interface programming of Eick configure to support a range of viewing functions that including identification, selection, collapse, expand, reposition and transforming of namespace related objects, also allows user to group sets of nodes and links into "phantom" aggregate node that including flags associated with each object using high-performance language [Eick: col 7, line 36-41], thus substantially reduces the time and expense associated with developing network interface in synchronized with the network data [Eick: col 3, line 12-24].

(10) Response to Argument

a) At page 7, "Applicant requests that the obviousness-type double patenting rejection be held abeyance".

As to the argument [a], examiner hereby maintains the "obviousness-type double patenting rejection of claims 1,13,21,24-25 as set forth in the previous office action.

b) At page 7-9, in view of applicant's remarks [page 7-9], the objections to the drawings is hereby withdrawn.

c) At page 10-11, claim, applicant argues that "claim complies with the requirements of 35 USC 101.

As to the above argument [c], as best understood by the examiner, claim 1, is directed to "non-statutory subject matter" because, claim 1 is merely directed to "software per se" or "routines" that manipulating data without producing any "useful, tangible and concrete" results, in other words, what part of the claim 1 is producing "real-world" result? and what is the "practical application" ?, at least applicant fail to provide "final result" by the claimed invention in the claim 1 elements particularly, ***determining if an entity exists in a second namespace related to the information; if so, determining if the entity has a characteristic that conflicts with the information; and if a conflict exists, modifying the entity to resolve the conflict prior to applying the change to the second namespace***" neither output, displayed nor saved, therefore, claim 1 is not producing "useful, tangible and concrete" results.

The examiner reviewed the specification but was unable to find a practical real-world use of the result (***determining if an entity exists in a second namespace related to the information; if so, determining if the entity has a characteristic that conflicts with the information; and if a conflict exists, modifying the entity to resolve the conflict prior to applying the change to the second namespace***). If the applicant is able to find one and inserts it into the claims provide the location the element is found in the specification.

Examiner applies the above arguments to the dependent claims 2-12.

d) At page 13, claim 13, applicant argues that "Applicant's specification is replete with examples and explanations as to the utility of the particular embodiments represented in applicant's claims....

As to the argument [d], as noted from the office action, that claim 13 do not have "practical application" because the "final result" by the claimed invention in the claim 13 particularly, ***determining if an entity exists in a second namespace related to the information; if not, creating a representation of the entity within the second namespace*** is not producing "useful, tangible and concrete" results, and therefore, claim 13 is a non-statutory subject matter. It is not clear from the claim limitation[s] that what is the "real-world" result?, and what is the "practical application"?, at least applicant fail to provide "final result" by the claimed invention in the claim 13 neither stored, outputted nor displayed to the user, therefore, examiner maintains 35 USC 101 rejection as stated above. Furthermore, applicant fail to cite "specific embodiment" from the specification, but merely argues "specification is replete with examples and explanations

The examiner reviewed the specification but was unable to find a practical real-world use of the result (***determining if an entity exists in a second namespace related to the information; if not, creating a representation of the entity within the second namespace***). If the applicant is able to find one and inserts it into the claims provide the location the element is found in the specification.

Examiner applies above arguments to the claims 14-20 dependent from claim 13.

e) At page 13-14, claim 21, applicant argues that claim 21 complies with 35 USC 101, as explained above, applicant's specifications replete with examples and explanations as to the utility of the particular embodiments.....

As to the above argument [e], examiner applies above arguments because "final result" by the claimed invention in the claim 21 particularly, ***creating a temporary entity within the second namespace that allows the synchronization to proceed without interference by the conflict; and if the conflict becomes resolved such that the temporary entity is no longer necessary, removing the temporary entity***" is not producing "useful, tangible and concrete" results, and therefore, claim 21 is a non-statutory subject matter, furthermore, final result[s] neither stored, outputted nor at least displayed to the user, therefore, examiner maintains 35 USC 101 rejection as stated above

The examiner reviewed the specification but was unable to find a practical real-world use of the result (***creating a temporary entity within the second namespace that allows the synchronization to proceed without interference by the conflict; and if the conflict becomes resolved such that the temporary entity is no longer necessary, removing the temporary entity***"). If the applicant is able to

find one and inserts it into the claims provide the location the element is found in the specification.

Examiner applies above arguments to the claims 22-23 dependent from claim 21

f) At page 15-16, claim 24, applicant argues that "applicant respectfully disagrees and points to the plain language of the claim, which begins by reciting "[a] computer-readable medium encoded with a data structure...."

As to the argument [f], as best understood by the examiner, claim 24 is not producing "useful, tangible, and concrete" results, for example claim 24 final results by the claimed invention particularly claim 24 elements "***a plurality of entities, each entity having a first field having a name, the name being unique across each entity in the data structure; a second field having an identity, the identity being globally unique; and a third field having a phantom property, the phantom property being operative to distinguish between a first state of the entity and a second state of the entity***", also final result neither stored, outputted nor at least displayed to the user, therefore, examiner maintains 35 USC 101 rejection as stated above

The examiner reviewed the specification but was unable to find a practical real-world use of the result (***a plurality of entities, each entity having a first field having a name, the name being unique across each entity in the data structure; a second field having an identity, the identity being globally unique; and a third***

field having a phantom property, the phantom property being operative to distinguish between a first state of the entity and a second state of the entity”). If the applicant is able to find one and inserts it into the claims provide the location the element is found in the specification.

It is further noted that as disclosed in the **specification at page 21, line 25**, **“computer-readable medium encoded with a data structure”** also cover the definition of “carrier wave”, as such **“carrier wave” or “signals”** is mere abstract idea and rejected under 35 USC 101, even though applicant disclosed various “computer – readable media containing instructions on tangible media [specification page 21, line 10-25, page 22, line 23-25,, page 23, line 1-25, page 25, line 14-17], one of the computer readable code medium being **“carrier wave”**. Hence, claim 24 is directed to non-statutory subject matter. Applicant hereby required to amend the specification to overcome the rejection.

g) At page 16-17, claim 25, applicant argues that “applicant respectfully disagrees and points to the plain language of the claim, which begins by reciting “[a] computer-readable medium having computer-executable components.....”

As to the argument [g], the examiner reviewed the specification but was unable to find a practical real-world use of the result particularly, ***“a synchronization environment having an associated external namespace, an associated central namespace, and a synchronization mechanism, the synchronization mechanism being configured to receive change information from the external***

namespace.....collisions and the placeholder component being operative to avoid dangling references” is not producing “useful, tangible and concrete” results, and therefore, claim 25 is a non-statutory subject matter.

It is further noted that as disclosed in the ***specification at page 21, line 25***, ***“computer-readable medium encoded with a data structure”*** also cover the definition of “carrier wave”, as such ***“carrier wave” or “signals”*** is mere abstract idea and rejected under 35 USC 101, even though applicant disclosed various “computer – readable media containing instructions on tangible media [specification page 21, line ***10-25, page 22, line 23-25,, page 23, line 1-25, page 25, line 14-17***], one of the computer readable code medium being ***“carrier wave”***. Hence, claim 25 is directed to non-statutory subject matter. Applicant hereby required to amend the specification to overcome the rejection. Examiner noted applicant's arguments at page 16-17, but applicant failed to specifically provide necessary support from the specification.

Examiner applies above arguments to claims 26-33.

- h) At page 19-23, claim 1, applicant argues that “specifically, applicant submits that the office has failed to establish a proper motivation to combine Karmanolis with Thatcher .
- i) At page 24, claim 13, applicant argues, “office has thus failed to establish a proper motivation to combine the references...”
- j) At page 26-28, claim 21, applicant argues that “office has thus failed to establish a proper motivation to combine the references”

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k) At page 29-31, claim 25, applicant argues that "office has failed to provide a proper motivation to combine Karamanolis with Thatcher....."

In response to applicant's argument [h-k] that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, firstly, Thatcher is directed to aggregating disparate namespaces, more specifically, user interface allows variety of namespaces that can be integrated and accessed independent of the types of the namespaces [col 2, line 13-15], secondly, user interface is used for displaying the first namespace based on information read by the first interface module, further allows to display at least a portion of the second namespace based on information read by the second interface module [see col 2, line 50-55], furthermore, it is noted that Thatcher specifically suggests host namespace foreign namespace, for example fig 3, element 51, 54, respectively, and first namespace corresponds to fig 3, element 51, also, Thatcher establishes relationship between foreign namespace and host namespace as detailed in col 8, line 45-52. As noted in the office action that Thatcher allows to modifying or updating the entity because Thatcher suggested user interface module[s] connected to user interface

element 57 as detailed in fig 3. Thatcher also suggests synchronizing namespaces in a distributed computer environment for example as detailed in col 6, line 43-50

Karamanolis reference is directed to namespace management in a distributed file system, more specifically, in the distributed file system environment, each partition server controls access to a subset of hierarchically-related, shared objects [page 1, col 2, 0014, line 2-4], further Karamanolis also suggests modifying target object in response to the link operation, and after modifying the target object, a reference to the target object is inserted in the namespace object as detailed in page 1, col 2, 0014. Karamanolis also suggests synchronizing namespaces in a distributed computer environment for example at page 3, col 2, 0048,

It is however, noted that Thatcher does not suggest "conflicts with the information, modifying the entity to resolve the conflict. On the other hand, Karamanolis disclosed "conflicts with the information, modifying the entity to resolve the conflict" [page 2, col 2, 0031, page 6, col 1, 0071, 0072, and 0075, fig 8], Karamanolis specifically teaches conflicts between link and unlink operations related to namespace, further resolving conflicts due to failure occurs during execution as detailed in fig 8, page 6, col 1, 0075.

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Karamanolis et al. into aggregating disparate namespaces of Thatcher et al. because both Thatcher, Karamanolis are

directed to firstly distributed network computer system [see Thatcher: fig 1; Karamanolis: fig 1], secondly, both are directed to synchronizing namespaces in a distributed computer environment [see Thatcher: col 6, line 43-50; Karamanolis: page 3, col 2, 0048]; thirdly, both are specifically directed to namespace operations and associated namespace objects specifying the structure, entities, and relation between target and host [see Thatcher: fig 3; Karamanolis: fig 5-6], and both Thatcher, Karamanolis are from same field of endeavor.

One of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Karamanolis et al. into aggregating disparate namespaces of Thatcher et al. because that would have allowed users of Thatcher to performing namespace operations by incorporating "log records" to track events of both success as well as failure records as suggested by Karamanolis [see page 3, col 1, 0046], particularly conflicts between link and unlink operations, furthermore, resolving the conflicts before and after the initiated link operations related to same namespace and target objects [see Karamanolis: fig 8, page 6, col 1, 0075], also avoid locking distributed resources by serializing operations at each partition, thus bringing the advantages of "reduces communications overhead, reduces synchronous I/O and increases operations concurrency [see Karamanolis: page 2, col 1, 0025, line 12-14].

Examiner applies above arguments to claims 2-12, 14-20, 22-23, 26-31 depend from claim 1, 13, 21, 25 respectively.

l) At page 28, claim 21, applicant argues that "applicant can find no discussion of a "temporary entity" within a second namespace that allows a synchronization to proceed without interference by conflict.....

As to the argument [l], as best understood by the examiner Thatcher is directed to computer system related the "namespace", more specifically host namespace and foreign namespace [fig 3, col 7, line 14-17], Thatcher also further suggests updates to replica, checking if the operation fails or goes to the next replica until all replicas have been updated, i.e. typically replicas not updated in one round of the synchronization process, therefore, "updating the temporary entity" as detailed in col 7, line 4-12.

m) At page 34-36, claim 24, applicant argues that "motivation fails to establish the desirability of combining Eick with Thatcher primarily because Thatcher suffers from no defect or deficiency that requires that addition of Eick.

n) At page 36, claim 24, applicant argues that cited combination fails to disclose or suggest the feature of a third field having a phantom property.....

In response to applicant's argument [m-n] that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in

the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, firstly, Thatcher teaches distributed directory organized in a hierarchical structure that representing various objects. I.e., data structure schema having relationship between objects as detailed in col 5, line 30-34, col 4, line 51-52, fig 2]; secondly, Thatcher also suggests hierarchical data structure partitioning particularly having tree, sub-tree structure and defining unique reference to identify object[s] as detailed in col 5, line 47-57, table 5-6; thirdly, it is noted that Thatcher establishes relationship among multiple partitions as detailed in col 6, line 1-27.

Eick et al. is directed to directed to constructing interfaces, more specifically, interface techniques that supports wide range of applications for example graphical representation of data, data acquisition i.e., interface allows support a range of viewing functions and like [col 3, line 38-44], Eick also suggests framework including database storing multiple network data structure defining various objects related to interface as detailed in fig 3, col 5, line 4-7; Eick also suggests data structure in database element 30 stores nodes, links and other properties related to network to be displayed in the network interface , further node may have name, attributes and arranged in hierarchical form [col 5, line 44-46].

It is however, noted that Thatcher does not specifically teach 'phantom property'. On the other hand, Eick disclosed 'phantom property' [col 7, line 8-11, line 30-41].

It would have been obvious to one of the ordinary skill in the art at the time of

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applicant's invention to incorporate the teachings of Eick et al. into aggregating disparate namespaces of Thatcher et al, because Thatcher et al, and Eick et al are all directed to distributed networking environment particularly teaching user interfacing [see Thatcher: fig 1-3, col 3, line 38-49; Eick: fig 2], and both references are specifically directed to entity data structure [Thatcher: fig 3;; Eick: fig 3].

One of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Eick et al. into aggregating disparate namespaces of Thatcher et al, because that would have allowed users of Thatcher, to implement the interface based on node and linking various namespaces in a hierarchical data structure, furthermore allowing users of Thatcher to use interface programming of Eick configure to support a range of viewing functions that including identification, selection, collapse, expand, reposition and transforming of namespace related objects, also allows user to group sets of nodes and links into "phantom" aggregate node that including flags associated with each object using high-performance language [Eick: col 7, line 36-41], thus substantially reduces the time and expense associated with developing network interface in synchronized with the network data [Eick: col 3, line 12-24].

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(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained

Respectfully submitted,



Srirama Channavajjala



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